

## CLAIMS

We claim:

1. A method for communicating object data comprising:  
generating a hash value based on object data representing a user of a local  
computer;  
storing the object data at a storage location; and  
returning an object name having the hash value and a location identifier  
identifying the storage location, the object name enabling a user of a remote computer to  
access the object data.

2. A method as recited in claim 1 further comprising:  
receiving a request for the object data, the request including the object name; and  
retrieving the object data from a local cache based on the hash value.

3. A method as recited in claim 1 further comprising:  
receiving a request for the object data, the request including the object name; and  
in response to receiving the request, retrieving the object data from the location  
using the location identifier.

4. A method as recited in claim 1 further comprising:  
receiving a request for the object data, the request including the object name; and  
determining whether the requested object data is in a local cache based on the  
hash value; and

1 if the requested object data is in the local cache, retrieving the object data from the  
2 local cache,  
3 otherwise, retrieving the requested object data from the location identified by the  
4 location identifier.

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6 5. A method as recited in claim 4 wherein the retrieving the requested object  
7 data from the location identified by the location identifier comprises:  
8 retrieving the requested object data from network storage.  
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10 6. A method as recited in claim 4 wherein the retrieving the requested object  
11 data from the location identified by the location identifier comprises:  
12 retrieving the requested object data from a local file system.  
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15 7. A method as recited in claim 4 wherein the retrieving the requested object  
16 data from the location identified by the location identifier comprises:  
17 retrieving the requested object data from a remote file system.  
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19 8. A method as recited in claim 7 wherein the retrieving the requested object  
20 data from a remote file system comprises:  
21 accessing the remote file system via a peer-to-peer connection.  
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23 9. A method as recited in claim 7 wherein the retrieving the requested object  
24 data from a remote file system comprises:  
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accessing the remote file system via a connection through a switchboard server.

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1           10.     A computer-readable medium having stored thereon computer-executable  
2 instructions for performing a method comprising:

3           receiving a name associated with a user on a remote computer, the name including  
4 location data and a hash value uniquely associated with a data object representing the  
5 user; and

6           retrieving the data object from one of a local cache based on the hash value or a  
7 location identified by the location data.

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9           11.     A computer-readable medium as recited in claim 10 wherein the retrieving  
10 the data object from one of a local cache based on the hash value or a location identified  
11 by the location data comprises:

12           determining whether the data object is in a local cache based on the hash value;  
13  
14 and

15           if the data object is in the local cache, retrieving the data object from the local  
16 cache;

17           otherwise, retrieving the data object from the location identified by the location  
18 data.

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20           12.     A computer-readable medium as recited in claim 11 wherein the retrieving  
21 the data object from the location identified by the location data comprises retrieving the  
22 data object from a remote file system.  
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1           13.     A computer-readable medium as recited in claim 11 wherein the retrieving  
2 the data object from the location identified by the location data comprises retrieving the  
3 data object from a local file system.  
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5           14.     A computer-readable medium as recited in claim 11 wherein the retrieving  
6 the data object from the location identified by the location data comprises retrieving the  
7 data object from a network storage.  
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9           15.     A computer-readable medium as recited in claim 11 wherein the retrieving  
10 the data object from the location identified by the location data comprises accessing a  
11 remote computer via a peer-to-peer connection.  
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16. A system for managing objects representing users in an instant messaging conversation, the system comprising:

a data object representing a user, the data object having an object name including a location identifier and a hash value, the object name allowing; and

an object store operable to retrieve the data object from a location identified by the location identifier and store the data object in a local cache based on the hash value.

17. A system as recited in claim 16 wherein the object name further comprises a creator identifier identifying a creator of the data object.

18. A system as recited in claim 16 further comprising a transport protocol stack enabling the object store to retrieve the data object from a remote storage location over a peer-to-peer connection.

19. A system as recited in claim 16 wherein the data object further comprise metadata descriptive of the data object.

20. A system as recited in claim 19 wherein the metadata comprises:

a friendly name field;

a type field indicating a type of data object; and

a hash value based on the metadata.

1           21.     A system as recited in claim 16 wherein the location identifier comprises a  
2 uniform resource locator (URL).

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4           22.     A system as recited in claim 16 wherein the location identifier comprises a  
5 uniform resource identifier (URI).

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